FARM AND GARDEN.

MATTERS OF INTEREST TO AGRICULTURISTS.

Some Up-to-Date Hints About Cultivation of the Soil and Yields Thereof—Horticulture, Viticulture and Floriculture.

A FLORIDA PAPER devoted to fruit growing says:

It is possible that in a few years the American people will be feeding on banana flour, as they now do on the flour of the wheat, rye and maize. It is claimed that the flour will keep as long as wheat flour, and is as nutritious as meat. Also that the banana is forty-four times as productive as the potato, and that an area which would grow enough wheat to support one man, would produce bananas enough to support 133 men.

It was the opinion of Alexander von Humboldt, after estimating the capabilities of the banana, that a single section of Central America could produce enough to feed the world. The meal or flour is made from the unripe banana, and the cheapness and plentifulness of the commodity, when once the industry is established, will most certainly be of interest to the poor, for this will in turn lower the price of the loaf. The manufacture of a banana sausage is said to be perfectly feasible. In this case the ripe banana is used and charged with condensed milk, and then put up in tins. Already some of the largest canning factories have begun to make this a feature of their business. The sausage is even more nutritious than the meal, and is so easily transportable that on a campaign it will be almost invaluable.

It has also been learned, without a doubt, that the banana meal can be used most successfully and economically in manufacture of beer.

So much for the fruit of the banana. It has lately been discovered that the skin of the fruit is also valuable. First of all, it gives a beautiful fiber, from which a durable and fine cloth can be manufactured. The juice of the skin also gives an indelible ink, and can be fermented into good vinegar. In fact, it rivals the cocoanut as being "the most useful tree to man."

If the "everlasting imported banana" can be converted into bread, sausages and beer, it will come into competition with the products of the great and powerful states of the north and west, which are able to stand the rivalry, while at the same time it will be withdrawn from competition with the other fruits of Florida by reason of the very small area to which it can be adapted.

There is still plenty of suitable land, however, and the man who feels like investing and engaging in banana culture, "has money in the bank," for a great company has already been established, and is now in working order, to develop the banana industry in Florida.

Every banana raised in Florida now finds a ready market, for it can all be used, meat, skin, juice and fiber, and the far-seeing man can sight profit ahead.

Setting Out Strawberries.

Bulletin No. 20 of the Maine Experiment Station says: A warm, rather moist sandy loam is usually preferred in growing this fruit, but in general any soil that will raise a good crop of corn will raise good strawberries. I would not be understood as encouraging neglect in any way, but the minute directions sometimes given for preparing the soil and for planting are misleading and are enough to discourage any novice from attempting to grow fruit.

Thorough drainage, either natural or artificial, is absolutely essential, and thoroughness in the preparation of the soil is of prime importance, but the excessive applications of manure and the hand labor frequently advised are unnecessary. It is well to grow some hoed crop as corn or potatoes on the land for one or two years before setting the plants, as in this way there is less danger from attacks of the "white grub."

The month of May is, perhaps, the best time for setting strawberry plants in this latitude, though good results often follow fall setting. Two very important considerations in setting the plants are that the crowns be just even with the surface of the earth and that the soil is pressed firmly about the roots. These points cannot be too strongly emphasized, for to their disregard may be traced more than half the failures in starting new plantings.

For general field culture the "matted row" system is probably best. The rows should be as long as convenient, that most of the labor of cultivating may be performed with a horse. The plants should be set eighteen inches apart in rows which are about four feet apart. Thus placed, a little more than seven thousand plants will be required for an acre. During the first season thorough culture should be practiced. It is also well to keep the runners cut back till the parent plants are strong and well developed.

Winter protection of the plants is always advisable. The value of such treatment is two fold: Not only are the plants protected from injury, but the fruit is kept clean and bright. The best material for the purpose is coarse meadow hay cut before the seeds have ripened.

Cotton Seed for Hogs.

In our last issue we cautioned feeders against feeding cotton seed to hogs until more was learned about it. The following from a gentleman who allowed his hogs to follow cattle fed on cotton seed is worthy of attention:

My opinion about feeding cotton seed to hogs is just this much: I would not haul it from the depot, as I am satisfied that it would kill more hogs than it would fatten. It will not do to have hogs follow them (referring to cattle fed on cotton seed meal), for I had to take my hogs away from my cattle. Since then they have stopped dying. I had hogs in three different yards and only lost those that were running after the cattle, and they died pretty fast when they commenced. The hogs would seem all right, and just drop down dead; look thrifty, while occasionally you would notice a few that would look hollow and gaunt for about a day, and the next day they would be dead. I was induced to try it (cotton seed meal) with the above results, and if I had not stopped feeding it I soon would have run out of hogs.—Farm and Dairy.

White and Yellow Corn.

Whether the yield of corn is affected by color, and whether the white or the yellow varieties produce the greater yield, has always been a matter of dispute. In order to secure definite information in regard to this the Mississippi experiment station has made 138 tests with 45 varieties of dent corn. As a result of this work the 75 tests with 25 white varieties have given an average yield of 43 bushels per acre, while the 63 tests with 20 yellow varieties have given an average of only 38.2 bushels per acre. These total averages coincide very closely with the partial results published in several of the annual reports, and which were as follows: In 1890 the yield of 17 white varieties was 44.6 bushels per acre, while 15 yellow varieties gave 37.1 bushels. In 1891, 25 white varieties yielded 37.5 bushels, while 18 yellow varieties yielded 34.9 bushels per acre. In 1892 the yield of 11 white varieties was 45.2 bushels, while the same number of yellow varieties gave only 40.5 bushels per acre. In 1893 and 1894 the tests were continued with 22 white varieties yielding 42.7 bushels, and 19 yellow varieties yielding 39.1 bushels per acre. During each year of this work the two varieties giving the heaviest yields were both white, though not always the same varieties.

These results have been so uniform, and have indicated so strongly that the better yield can usually be secured from the white varieties, that the published records of similar work done at other stations have been examined very carefully, and have been found to correspond very closely with the results secured at this station.

These figures show that in a total of 1,267 tests with 490 varieties, the average yield of 217 white varieties has been 2.5 bushels per acre in excess of the yield of 273 yellow varieties; and that at only one of the seven stations making these tests have the yellow varieties given the better average yield. At six of the seven stations some one white variety has given the best yield, and of the thirty-five varieties named as giving the best yields at the different stations, twenty-four are white and only seven are yellow.

Such an agreement in results over such a wide area, and secured by such a large number of careful tests, cannot be accidental, but shows very plainly that it is usually possible to secure greater yields from white than from yellow varieties,

Sow More Clover.

Few farmers sow clover, and many of those who do, greatly err in their mode of management. In the first place they fail to sow as much seed as is necessary to insure the best improvement; for if the ground is not occupied with clover, weeds will fill the space, to the injury of what clover there is. Another error is in pasturing the clover too early and too constantly; for if the tops of the plants are not allowed to develop the roots, from which much of the improvement in the soil is derived, are correspondingly checked. No stock should be turned upon clover until it is in bloom; when the first crop is eaten down the animals should be changed to other pastures; or, if the first crop is cut for hay, the second crop should be saved for seed and the improvement of the soil. The second crop of the season furnishes much more and better seed than the first. When it is intended to save the seed, the first crop may be either mowed or pastured down. If pastured, the more speedily it is eaten down and the stock turned off the better, so that the growth of the second crop may be vigorous and uniform over the entire piece of ground.—Ex.

Rotation of Crops.

Rotation of crops is indispensable to good farming. To maintain the fertility of the soil clover or some other green crop should enter the rotation as often as once in four years. In a correct system of rotation of crops barley, oats, wheat, rye, should not immediately succeed one another. A crop of corn, potatoes, beans, clover or grass should intervene. Crops should succeed one another that draw as much as possible their sustenance from sources as widely different as possible, and the cultivation should be different, also, to produce the greatest benefit. A great fault with our farming is that the same kind of crop is raised too long on the same ground. One year, or at most two, is as long as a piece of ground should be sown to the same kind of crop. Change to a crop as different in its nature as possible; then give periods of rest by sowing the grasses, clover, etc., and our farms will never degenerate. The intelligent farmer will take heed and be sure to keep his soil in good spirits. He will not rob it of its most valuable ingredients, but will study how he may best preserve them.—Ex.

A driving trade—coaching.

Apple-Tree Lice (Aphis Mali Fabr.)

Prof. James Troop, horticulturist at Perdue University, writes: This little insect has appeared in such numbers in our apple orchards as to attract the attention of fruit growers from all over the state. In fact inquiries were received during the winter concerning the eggs which were found in unusual abundance on the branches. Since the warm weather began these inquiries have become so numerous that it seems best to publish a brief account of the insect and means of combating it.

The little shiny black eggs, mentioned above, are deposited by the female louse on the twigs and smaller branches of the apple trees in the autumn. About the time the buds begin to expand in the spring, these eggs hatch into very small light green lice, which immediately insert their tiny beaks into the young and tender leaves and commence sucking their juices. The broods hatched at this time are all females, which mature sufficiently in ten or twelve days to enable them to begin the process of reproduction, which, contrary to the general rule, they are able to do without the presence of the male, and the slow process of egg laying is avoided, as the young which are produced during the summer are hatched within the mother. The process of throwing off these summer broods continues until fall, when a brood of true males and females is produced, from which comes the stock of eggs for the next season's supply.

* * *

Remedies: The many inquiries received concerning this insect have developed the fact that people are not generally acquainted with the manner in which it takes its food. Like all members of this family, instead of having well developed jaws for biting and chewing, its mouth parts are developed into a beak, which is adapted for sucking. It will be seen therefore that the arsenites will have but little value in fighting this pest, as it takes its food from the inner tissues of the plant. It will therefore be necessary to apply some substance which kills by contact: and the kerosene emulsion is as effective as any substance which can be used. This is made by dissolving one-half pound of hard soap in one gallon of hot water, after which add one gallon of kerosene or coal-oil and mix thoroughly, by forcing the mixture back into the same vessel by means of a spraying pump, until it becomes a thick creamy mass. Dilute this with ten times its bulk of water before applying it to the trees.

These insects also have their natural enemies, which aid very materially in their destruction. Among these are the several species of Lady-bird beetles, which are unusually plentiful this season. They should not be destroyed, as they are among the horticulturists' best friends.

Treatment of Meadows.

A number of the experiment stations are discussing the treatment of meadows.

According to the Minnesota station, grasses and clovers sown in that state in the spring with a small grain crop should have a hard, fall-plowed seedbed. If the soil be wet and heavy, harrowing should be very light, but if the land be dry it may be thorough. Permanent meadows are not considered as profitable as short rotations of meadows and cultivated crops. For wet lands a mixture of red top and alsyke clover is recommended. The latter makes a good growth in the first few years, while several years are required for the best results from redtop. For this reason redtop does not find a place in short rotations. The cost of orchard grass seed, from $3 to $5 for the three bushels necessary to an acre, practically excludes this grass from a short rotation. Timothy fits into rotation well, but alone it serves for only a few years in a permanent pasture or meadow. Blue grass in Minnesota grows too short for meadows. In choosing a field for a permanent meadow, it is well to avoid dry, sandy or gravelly soil.

At the Michigan station recently seeded meadows yielded more hay than those which had been in grass and pastured for about twenty-five years. The following plants were sown alone: Meadow fescue, meadow foxtail, tall oat grass, redtop, June grass (blue grass), orchard grass, alfalfa, agropyrum tenerum, fowl meadow grass, taller meadow fescue, timothy red clover and mammoth clover. Meadow fescue and perennial rye grass were sown together. The yields made by these two were compared with the hay from a mixture of timothy, tall oat grass, orchard grass, red clover, mammoth clover, and agropyrum tenerum. The mixture afforded by far the largest crop.

The Massachusetts station condemns the seeding down of grasses in the spring in Massachusetts. On the other hand, in Kansas it has been found best to seed in the spring, not earlier than April 15. On the Kansas station farm a mixture of orchard grass (2 bushels per acre), and red clover (3 quarts), has proven more satisfactory than any other combination.

Suppress Filled Cheese.—Never were the dairymen of the country more alive to the necessity of decisive action on the subject of filled cheese than now. From every cheese district in the country is heard the Macedonian cry for succor, and judging by the bills now before many of the legislatures, an effective damper will be put on the illegitimate sale of such goods. No reasonable man can complain of the manufacture of skim cheese, so long as it is sold for what it really is; the crime consists in supplying the place of the natural fat with a foreign article and then making the product masquerade as full cream goods, and attempting to palm it off on the consuming public as the genuine article, thus robbing the buyer and injuring the sale of pure goods. —American Cheesemaker.

A Washington Romance.

Miss Anna Gould's and the Count de Castellane's is not the only interesting international marriage that is on the cards. The Duke di Arcos, Spanish minister to Mexico, has been in Washington, and those rare people whose memory goes back twenty years wondered if he had come to see a certain lady to whom he had been engaged long years ago and who was still single. A father with no fancy for an alien son-in-law had interfered in those days when the duke was no duke at all, but merely a young attache. He had not forgotten his first love, though, and when he came back like a loyal gentleman to ask for her no decent father could have refused him, and so the engagement has been renewed and an early marriage will follow. Is not that a beautiful contrast to the usual international match?—Boston Transcript's Washington Letter.

Time may be money, but most men will stand at a street corner for an hour waiting for a 'bus or a car rather than pay for a cab.

We love the body for the soul's sake, but never the soul for the sake of the body.

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